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Architecture 100

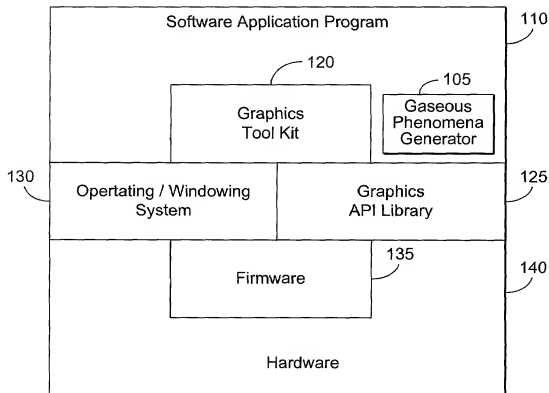


FIG. 1

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200

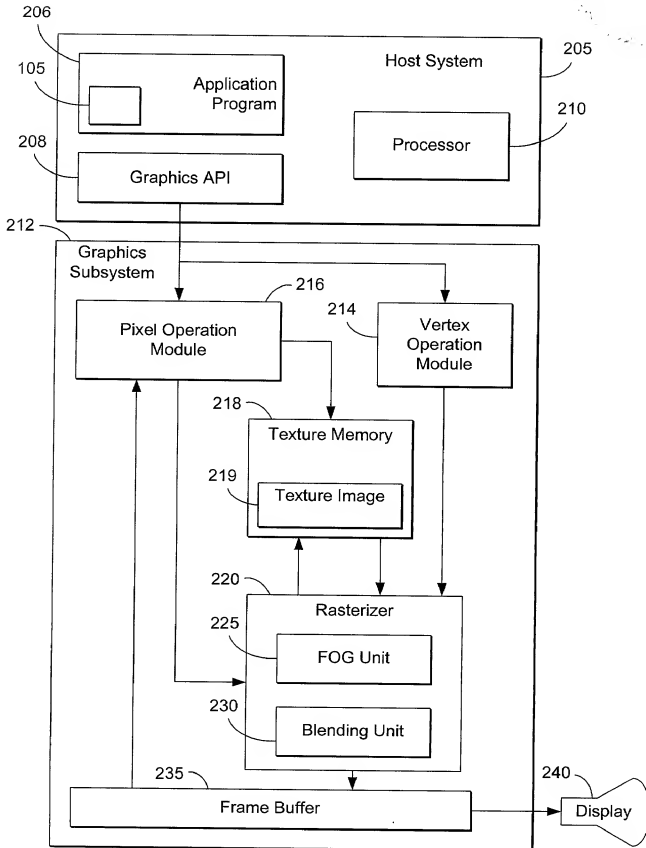


FIG. 2

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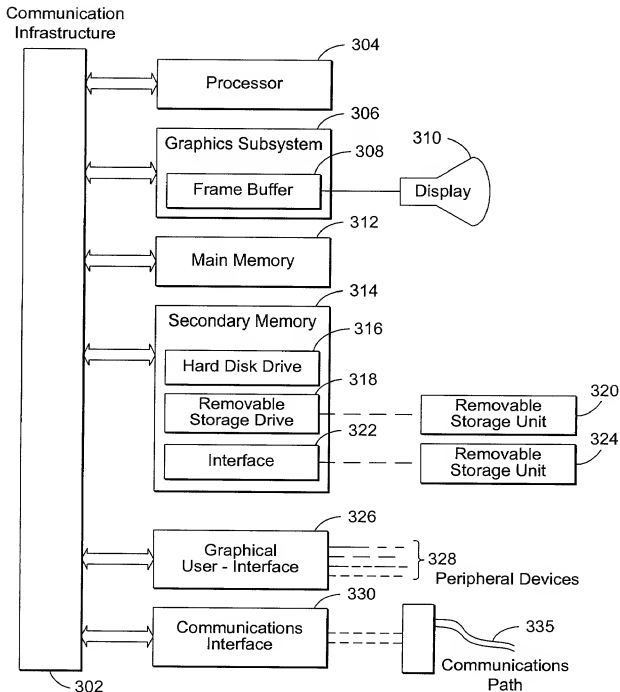
Computer System 300

FIG. 3

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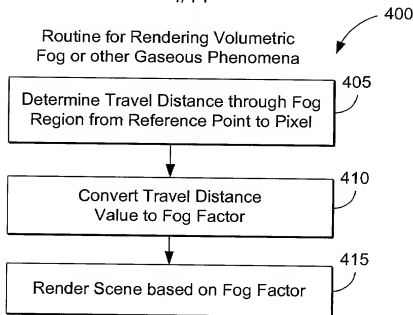


FIG. 4

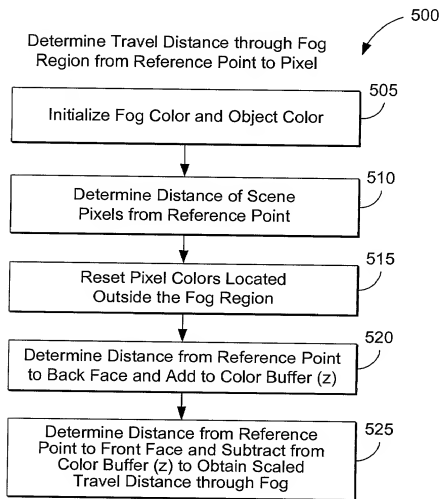


FIG. 5

000005-12701

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Determine Distance of Scene  
Pixels from Reference Point

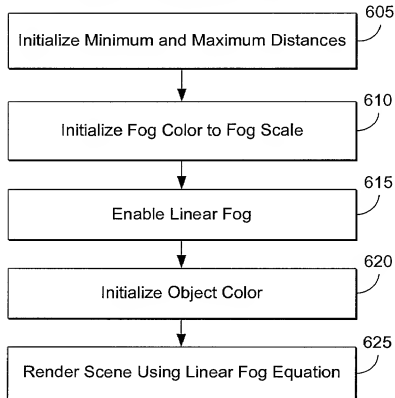


FIG. 6

Linear Fog Equation

Equation One (1)

$$\text{Attenuation Factor}(f) = \frac{\text{Maximum Distance} - \text{Pixel Distance}}{\text{Maximum Distance} - \text{Minimum Distance}}$$

Equation Two (2)

$$\text{Color} = f \cdot \text{Object Color} + (1-f) \cdot \text{Fog Color}$$

Equation Three (3)

$$\text{Color} = \frac{\text{Pixel Distance} - \text{Minimum Distance}}{\text{Maximum Distance} - \text{Minimum Distance}} \cdot \text{Fog Scale}$$

FIG. 7

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Reset Pixel Colors Located Outside the Fog Region

800

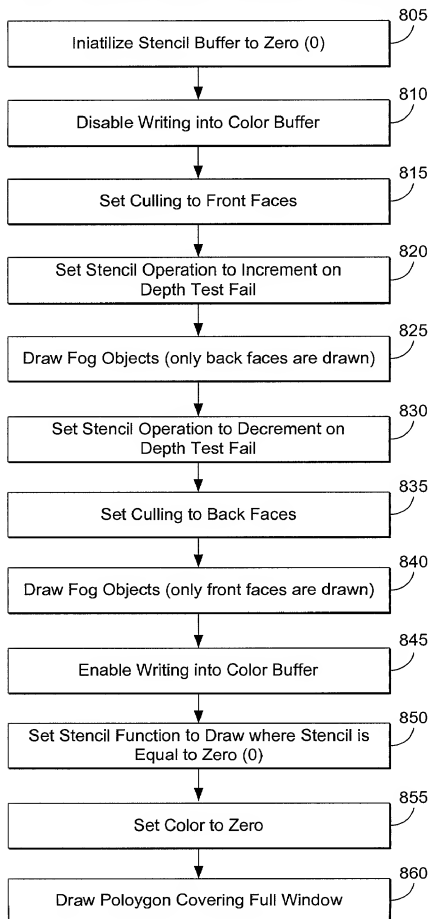


FIG. 8

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Determine Travel Distance through Fog  
Region from Reference Point to Pixel

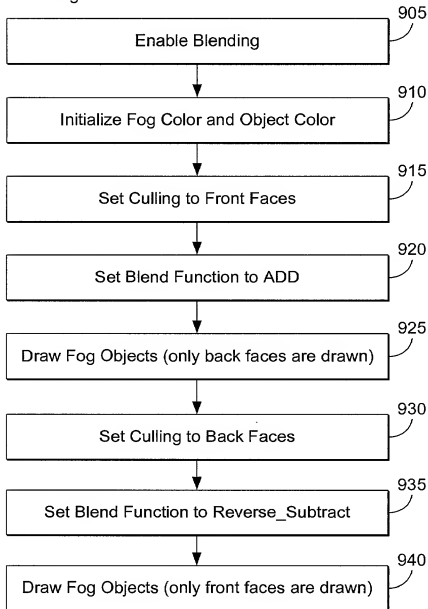


FIG. 9

Render Scene Based on Fog Factor

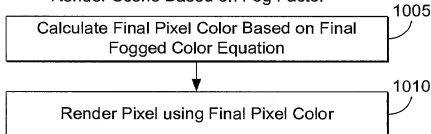


FIG. 10

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Final Fogged Color Equation

$$\text{Unfogged pixel color} \cdot \text{fog factor} + \text{fog color} \cdot (1 - \text{fog factor})$$

FIG. 11

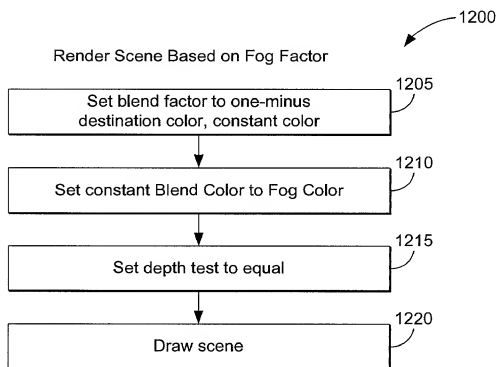


FIG. 12

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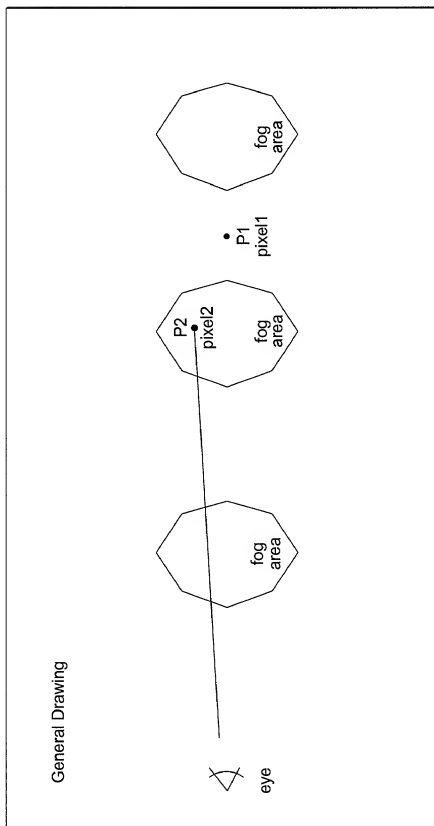


FIG. 13A

TOC2237-580000000

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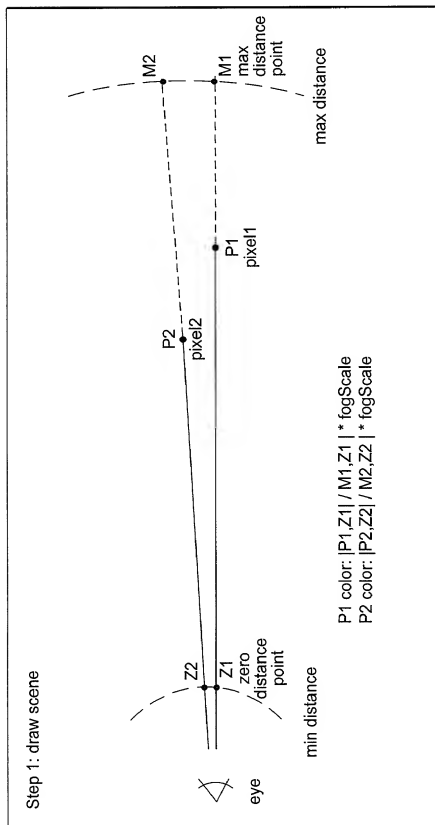


FIG. 13B

### Step 2: draw fog objects

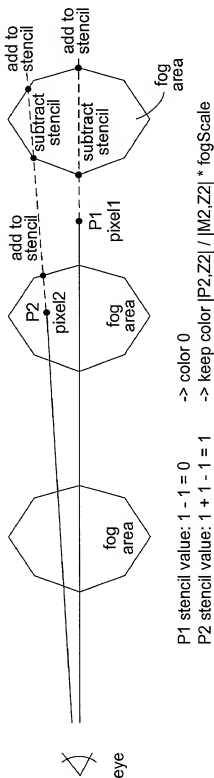


FIG. 13C

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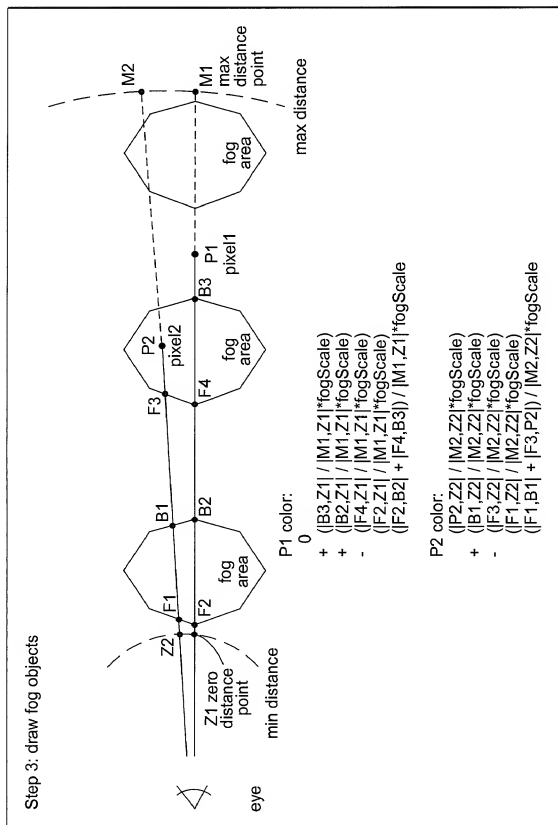


FIG. 13D

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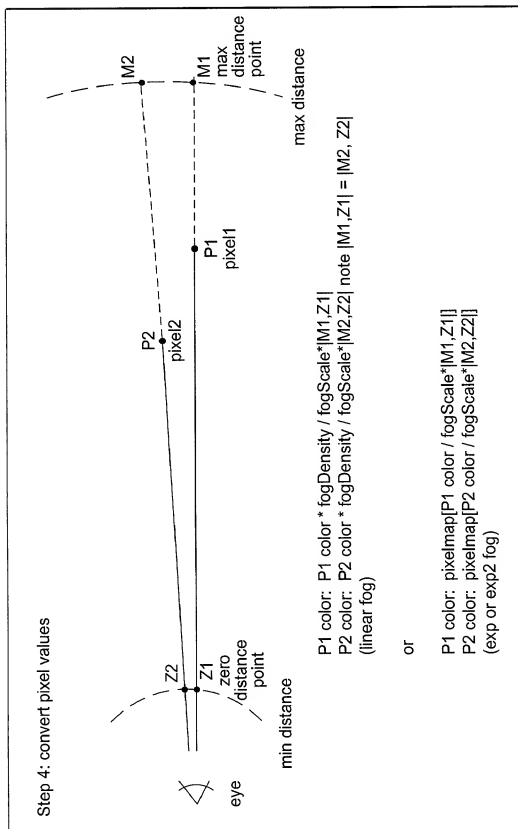


FIG. 13E

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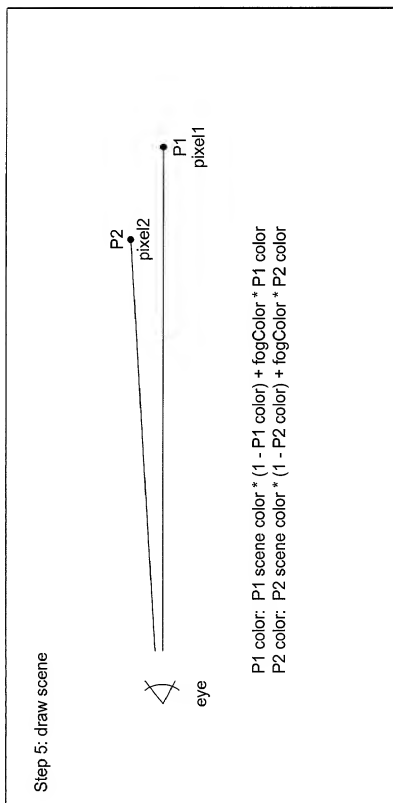


FIG. 13F